CONSTRAINT-INDUCED MOVEMENT THERAPY FOR UPPER EXTREMITY MOTOR RECOVERY FOLLOWING STROKE

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Constraint-Induced Movement therapy (CI therapy) is a rehabilitation approach designed to promote neural plasticity, improve movement control and increase functional independence in patients following neurological injuries. Mounting evidence suggests that this approach is effective for producing improvements in motor function and actual amount of use of a more-affected upper extremity (UE) in the real world environment. The purpose of this one-hour presentation will be to describe the UE CI therapy protocol and research supporting its use. The emphasis of the presentation will be on evidence for UE CI therapy with persons recovering from stroke.

Session Outline

I. Introduction
   a. Development of the CI therapy UE protocol
   b. Theoretical basis behind effects of CI therapy
      i. Overcoming learned nonuse
      ii. Promotion use-dependent cortical plasticity
   c. Measurement philosophy
      i. Best effort measures
      ii. Real world measures
   d. Participant selection
      i. Pre-treatment movement criteria
      ii. Balance and mobility
      iii. Cognition
      iv. Communication
      v. Pain
      vi. Pre-treatment real world use

II. CI therapy protocol for UE recovery
   a. Therapist-supervised motor training
   b. Constraining use of more-affected UE
   c. Transfer package

III. Selected research
   a. Early studies at UAB and elsewhere
   b. EXCITE Trial
   c. UAB Factors study
   d. Other applications

IV. The future of CI therapy (research and clinical application)

Selected References


